

## Montana Department of Transportation PO Box 201001 Helena, MT 59620-1001

## Memorandum

To: Distribution

From: Mark Wissinger, P.E., Construction Engineer

Date: August 5, 2002

Subject: Water for Dust Control

The question of accounting for the Water For Dust Control item has been brought to our attention. Specifically the question has been raised of when we do, or do not, pay for this item. Also, guidelines for the monitoring of quantities measured for payment has been requested. The two most applicable Specifications are Subsections 618.03.12 and 618.04.5 and read thusly:

618.03.16 Water For Dust Control. Furnish, haul, and apply dust control of water using tank trucks equipped with spray systems that uniformly distributes the water over the application area. Discontinue the watering as directed.

618.04.5 Water For Dust Control. Dust control is measured by the 1000 gallon (1 KL) unit used and accepted.

Measurement will be by the approved meter, load counter or by manual count of the number of loads of a known quantity applied on the roadway.

No measurement is made of water used other than for dust control for environmental compliance and convenience of the traveling public.

The language used here is fairly strong when describing the control MDT has on when water is to be measured for payment under this item, "No measurement is made of water used other than for dust control for environmental compliance and convenience of the traveling public." This specifically precludes payment for water used in embankment construction, gravel section construction, or any other operation.

The language also describes our control of how much is to be applied, "Discontinue the watering as directed." Section 105 describes in general the authority of the Project Manager/Engineer when determining how and when work is to be performed. Specifically, Subsection 105.12 addresses unauthorized work this way, "Work done contrary to instructions received, or beyond the plan limits, or extra work done without the permission of the Project Manager will not be considered for payment." From these specifications we draw the authority to direct when operations start, when operations cease, and what happens if they do not.

Measurement of the water eligible for payment can be by the several prescribed methods. If you are not comfortable that the quantities are being accounted for accurately by these methods, become so. Subsection 109.01 says; "The method of measurement and computations used in determining quantities of materials furnished and work performed are those methods recognized as conforming to sound engineering practice." Accuracy is a foundation of sound engineering practice. You are not obligated to accept quantities unless satisfied that they are being accurately accounted for. Remember Subsection 109.03; "Only those quantities of materials actually

incorporated into the final work and *accepted* (emphasis added) will be paid." Also, Subsection 210.03.5 describes watering equipment. We do not have to accept equipment that leaks excessively.

The EPM is left with a great deal of discretion in determining what constitutes an environmental compliance situation or convenience of the traveling public. A good question to ask when determining if water is eligible for payment under this item might be; Who benefits the most from this application of water, residents and the traveling public, or the contractor? A good measure for determining when dust control is required may be the number of complaints you receive from residents and the traveling public. We of course have to be alert to those situations where dust may cause a hazard by reducing visibility, and address it quickly. Remember that all costs, including dust control, for maintenance of haul roads or other contractor facilities are not MDT's responsibility.

In some instances where embankment will carry traffic for a period of days, or traffic gravel is in use, it may be more cost effective to use a dust palliative in place of water. It would be difficult to give firm guidelines for when this may be the case, but factors to consider would be relative bid prices, the period of time when a given lift will be exposed to traffic, or weather in general. We will be experimenting with the addition of dust palliative to gravel during pug mill operations. We believe there will be benefits in the form of better palliative dispersal and retention, stabilization of moisture contents, improved compaction operations, and possibly even improved densification. We'll keep you informed on this matter. If you believe this would be an option on a project, work with the DCE to get this accomplished.

The level of allowable sulfites in dust palliative have been deliberately specified at a relatively low level due to our concerns with placing this material in close proximity to PCCP, CTB and RCP installations. The levels specified should not be detrimental to these materials, but it is something to remember.

We need to make sure the bid quantity for the Water for Dust Control item is sufficient, which will help to insure a reasonable bid price. Please make this an item you review at the preliminary plan stage. Since we have recently broken this item out from traffic control and made it a separate bid item, our knowledge of the quantities required is not fully developed. That is to be expected. I'd encourage you to make enquires with experienced personnel when making your estimates.

This memo is rescinded five years from the date of issuance if not updated. If you have questions please contact me.

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